UAT-Online: Associate of Arts in Game Design

Program Description

The continued expansion of the game industry into all aspects of daily life is creating new opportunities for game production and development. Gaming technology is used in many applications from PC, console, mobile, web and casual gaming to serious gaming, training, simulation, and medical treatment and beyond. This vast array of gaming styles and use of gaming technology creates a need for industry professionals who understand both the technology behind gaming as well as the theories of game play.

Students in the Game Design program will gain an insight into what is involved at all levels of game development, from the initial concept to the completed project. Courses will emphasize the essential issues in developing games for multiple platforms and applications. Game Design students focus on the design principles, skills and techniques required to create the systems, design documents and prototypes for game projects. Courses will emphasize design skills such as design concepts, game documentation, game balance and play-testing, interactive storytelling and interface design. Students in the Game Design program will also develop a critical approach to the study of gameplay, interaction and design. Graduates of the Game Design program will have the skills required to pursue a career in the game industry with a focus on the design needs of a game project.

Within the program, students will be able to focus on game, level and system design and on the tools used to implement these designs in games. Using industry-standard tools and practices in a team-based environment, designers will work with artists and programmers to create complete projects. This well-rounded approach provides students with a deep understanding of all aspects in the game creation process and the skills to further the craft of game development.

How UAT-Online Works

UAT-Online's Associate of Arts in Game Design program has been developed to give students the ability to focus 100% of their attention on each individual skill and class needed to become successful in this rapidly growing field. Classes are taken one at a time, and last five weeks each. Three classes will be taken each semester for a total of 15 weeks per semester. Courses are taken sequentially in order to build on the foundation of previous skills learned. This helps to increase overall understanding and comprehension of the material.

Objectives

- Master the design principles used in game design and development
- Create and implement compelling game designs utilizing industry-standard tools and software
- Prototype and develop original game concepts for Web, console, PC and handheld gaming platforms
- Produce game designs for multiple gaming applications including triple-A, serious, casual and mobile games
- Develop analytical skills for examining gameplay focusing on design principles and practices
- Create game designs for and collaborate on numerous projects with industry-style production pipelines
- Participate in every level of game development from initial design to publishing
- Develop a diverse portfolio of industry-standard game designs contributing to complete works

University Core Courses

INT200 Internship
PRO102 Professional Skills Development
PRO210 Portfolio I/Capstone I
TCH110 Foresight Development

General Education Courses

BIO101 Introduction to Biology
ENG101 Composition I
ENG102 Composition II
MAT056 Pre-Algebra (if required)
MAT175 College Algebra
SOC150 Technology and Society

Degree-Specific Courses

ART105 Communicating with Color
ART108 2D Design
CSC100 Computer Programming Concepts
GAM101 Game Concept Design
GAM150 Evolution of Electronic Games
GAM170 Game Design Workshop I
GAM200 Critical Game Studies
GAM215 Game Scripting Languages
GAM220 Applied Game Theory
GAM230 Level Design
GAM250 Gaming Platforms and Standards
GAM252 Game Tools and Techniques
GAM351 Writing for Interactive Games (WI)
MTM101 2D Computer Graphics Tools

*This list represents the combination of courses necessary for the degree. Course sequence and offerings may change due to software or other scheduling requirements. All courses designated **(WI)** are Writing Intensive courses.*

University Core Course Descriptions

INT200 Internship
An internship is considered a supervised, practical experience that is the application of previously learned theory. Employers/sponsors work with the student to meet specific objectives and/or learning goals and provide special mentoring or networking opportunities. In exchange, the intern helps the employer/ sponsor in meeting overall work goals for the agency/company.
Students completing 3.0 credit internships must work a total of 150 hours, or 10 hours per week for 15 weeks.

PRO102 Professional Skills Development
This course is designed to develop lifelong learning strategies. This course provides the basic skills for success in the educational, professional and personal environment. Specific topics explored are personality profile analysis, developmental styles, conflict resolution skills, group problem solving and learning style analysis. Collaboration and group skills development will be emphasized. Students will have the opportunity to receive extra assistance in computer and word processing skills.

PRO210 Portfolio I/Capstone I
This course is intended to fulfill the associate's-level student's portfolio/capstone graduation requirement. Students in this course will compile and present their individual portfolio to the faculty in their disciplines at least twice over the course of the semester. Feedback will be used to improve the quality of the final submitted portfolio.

TCH110 Foresight Development
Foresight is the act of looking to the future. This course helps you learn better global, business and personal foresight, so you can better enjoy and manage your own future. This course will explore the big picture history of accelerating change from universal, historical and technological perspectives, as well as identifying global trends that are affecting individuals, society, businesses and governments. Additionally, the course will examine how organizations make bets on the future, and gives the student a chance to explore career prospects in a variety of fields. Finally, discussion of how biology, psychology, community and culture help and hinder personal thinking about the future will be discussed. We will articulate and explain the four fundamental foresight processes: innovating the future (creative development of products and services); planning the future (developing shared goals and processes); profiting in the future (achieving measurable positive results, including environmental, social, and economic benefits); and predicting the future (trend identification and analysis). Assignments will be fun, personalized to your own foresight goals, and will include brief readings, brief writing, discussions, debates, visuals, film, podcasts and games.

General Education Course Descriptions

BIO101 Introduction to Biology
This course explores the basic issues of living organisms. The material covered emphasizes molecular and organic biology, as well as the structure and function of plants and animals. Learning activities include lectures, group activities and various practical exercises that help students to better understand biology and to use their knowledge in everyday life, as well as in their future careers.

ENG101 Composition I
This course is designed to present effective techniques in organizing, developing and revising academic essays that reflect collegiate-level critical and logical thinking skills. Students will write a minimum of four essays, directed toward audiences with specific rhetorical situations, that stress descriptive, analytical, evaluative and persuasive/argumentative writing. Students will also develop their critical reading skills: analyzing, evaluating and critiquing the claims and evidence used by various authors.

ENG102 Composition II
This course expands and refines the objectives of Composition I. It emphasizes critical/logical thinking and reading; problem definition; research strategies; and writing analytical, evaluative and/or persuasive papers that incorporate research. Students will be introduced to the art of modern information research by conducting literature reviews and electronic searches using a variety of media.

MAT056 Pre-Algebra (if required)
MAT056 provides students with a firm foundation for the transition from arithmetic to algebra. This course will explore basic mathematics and prepare the student for the remainder of the math courses in the degree program.

MAT175 College Algebra
This course will include a thorough treatment of relations and functions, polynomial functions, exponential and logarithmic functions, systems of equations and inequalities, matrices, conic sections, sequences, induction and probability.

SOC150 Technology and Society
SOC150 is designed to introduce students to the essential understanding, development, theories, strategies and historical interrelation of technology and society. The purpose of the course is to provide students with the tools necessary to understand the role technology has played in society and to prepare students for interaction in a technology driven world with a comprehensive look at the relationship between technology and culture. Technology will be recognized as a driving force in cultural revolutions and as a foundational concept of human development. The course will consider rapidly changing technologies in modern society, the problems associated with these changes, and the affects of these technologies on the societies and cultures around the world.

Degree-Specific Course Descriptions

ART105 Communicating with Color
This course applies color theory as an element for communication and expression as applied to traditional and digital design in the visual communications field. This fundamental course includes color theory, color interaction, color psychology, color perception in an ethnically diverse international audience, and color trends. This course covers creative and technical aspects of color design issues using digital illustration and traditional media manipulation.

ART108 2D Design
ART108 is an introduction to design concepts with an emphasis on traditional compositional theory, design principles and elements. This course is designed to give students a strong understanding of two-dimensional visual elements as they pertain to traditional media.

CSC100 Computer Programming Concepts
The purpose of this course is to introduce the fundamentals of computer science and programming to those students majoring in this area. Students will become familiar with problem-solving techniques and algorithm development using computers. This will include a structured high-level programming language. Topics will include flow of control, assignment, arrays, functions, and input and output, among others.

GAM101 Game Concept Design
Want to play? This course is an overview of game development from the creative and theoretical (as opposed to purely technical) standpoint. Students will learn to analyze games and gameplay elements, examine genres and trends in gaming, and formulate their own outline for an ideal game. We will also examine social issues and pressures related to gaming and the ultimate question: why do we play games?

GAM150 Evolution of Electronic Games
This is a critical review of the technological and cultural history of video games, from the first all-analog machines to the powerful console systems of today. We will discuss the primary innovators and historical figures of the industry as well as its continuing integration into everyday life and analyze the trends and cycles that drive game design. Through analysis and example, we'll look at the development of the game GUI, the formation of the classical game genres, the explosion of game-related technology and the possible futures of the industry.

GAM170 Game Design Workshop I
This course explores the conception, refinement and presentation of game design ideas in an atmosphere similar to a creative writing workshop. Students will work singly and in small groups to develop game ideas, compare and contrast them with published games and then create focused design documents for possible future production. We will analyze past and present games with a focus on their ideas, concepts and mechanics, and explore outside the boundaries of the traditional genres and limitations of the mass market. The end product will be several robust, polished game designs that have been tested by your most critical audience—your peers.

GAM200 Critical Game Studies
This course is an introduction to advanced critical techniques and approaches to game design, game theory and the gaming audience. Using techniques of critical theory, ludology and game theory, we'll take a deep look at the structure of games and their interaction with the user and explore how games balance rules with freedom and risk with reward. The course will also deal with interface design, user control issues, data representation for the gamer and feedback loops. Present and future game genres will also be examined; they will also be compared and contrasted among different platforms and styles of play.

GAM215 Game Scripting Languages
High-level scripting languages allow for rapid development, content creation and interactive events, and drive many of today's most powerful game engines and tools. Used for both game logic and automation tools, scripting language has become a mainstay in game production. Some of these languages have become so powerful that users can create entire stand-alone games, and are becoming a basis for full-scale AAA development. In this course students will choose a scripting language (such as MAX, MEL, LUA, Python, TorqueScript, Ruby or ActionScript) and create game-related projects, tutorials and proof-of-concept applications.

GAM220 Applied Game Theory
This course will apply the theories of game design by taking a game concept from the conceptual stage to a completed project. Students will continue the exploration of game theory by discussing and demonstrating how it is applied to production-based projects. Students will leave this course with an extension of good game design as a completed project that demonstrates their understanding of the topic.

GAM230 Level Design
Level Design will introduce students to the tools and concepts used to create levels for games. The course will incorporate level design and architecture theory, concepts of the critical path and flow, game balancing, play-testing and storytelling. Using user-friendly toolsets from AAA industry titles, students will build and test levels that reflect design concepts.

GAM250 Gaming Platforms and Standards
This course gives an overview of different platforms available to the game designer. The students will have an understanding of the strengths and weaknesses of the different gaming platforms. This course will also address the technical and psychological aspects of multi-user/multi-player gaming environments. Finally, students will be exposed to the current standards that exist in the industry. This includes, but is not limited to, modeling, texturing, sound editing, programming, video creation, marketing, etc.

GAM252 Game Tools and Techniques
One of the challenges of the game development environment is the constant flux of tools, plug-ins and engines used by developers and the "mod" community. Often these tools have poor documentation, rough user interfaces and less-than-stellar stability, making mastery an elusive goal. The purpose of this project-based course is to allow a student to choose a game toolset, SDK or mod environment and produce a project in a team-oriented environment with a focus on learning the tool itself and its quirks, limitations and workarounds. During the course, we will discuss team-building, asset and script generation, moving and converting data types between applications, and producing polished, final work; these skills will be put to use in level design and mod projects for both artists and programmers.

GAM351 Writing for Interactive Games (WI)
Dynamic content and electronic games pose a serious challenge for the writer: How do you adapt linear narratives to the ever-changing environments of today's interactive entertainment? Today's surfers and gamers

are no longer passive consumers. They want to take part in the story and make choices that have an impact. Through the use of BioWare's Neverwinter Nights and other tools, we will explore hypertext writing and the power of truly personalized storytelling and take the once-linear game story to the next level.

MTM101 2D Computer Graphics Tools
This course is an overview of the primary industry software tools (Adobe Photoshop and Illustrator) used in the creation of 2D computer graphics. Students will learn the commands and interfaces of industry-standard raster and vector graphics software applications in order to create and manipulate 2D images.